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AGRICULTURAL HISTORY is designed as a medium for the publication of research and documents pertaining to the history of agriculture in all its phases and as a clearing house for information of interest and value to workers in the field. Materials on the history of agriculture in all countries are included, and also materials on institutions, organizations, and sciences which have been factors in agricultural development.

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CONTRIBUTORS

Dr. James C. Malin ("The Background of the First Bills to Establish a Bureau of Markets, 1911-12") is associate professor of history at the University of Kansas, Lawrence, and a member of the editorial board of the *Mississippi Valley Historical Review*. He is the author of *Indian Policy and Westward Expansion* (Lawrence, Kans., 1921), *Interpretation of Recent American History* (New York, 1926), and *The United States after the World War* (Boston, 1930). At present he is engaged in a historical study of agricultural policy in the United States.

Raymond Phineas Stearns, A. M. ("Agricultural Adaptation in England, 1875-1900") is an assistant in the department of history at Harvard University and a graduate student in his third year.

AGRICULTURAL HISTORY

VOLUME VI

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THE BACKGROUND OF THE FIRST BILLS TO ESTABLISH A BUREAU OF MARKETS, 1911-12¹

JAMES C. MALIN

The economic system always embraces both production and distribution, but at different stages in its evolution a relatively greater emphasis may be placed upon one rather than the other. During the nineteenth century economic problems centered more largely about production. Toward the end of the century and after the opening of the twentieth century the more insistent problems were those of distribution. In fact the stress was so conspicuous as to induce some students to apply the label the distributive age. These generalizations apply to urban industrial systems as well as to agriculture.

During the nineteenth century it was not unnatural that the application of artificial power to industry, with the resulting revolution in manufacturing processes, should focus initiative relatively upon the improvement of production. It was not until the system had attained such proportions as to draw raw material from the ends of the earth and to seek world markets for excess production that distribution and marketing became the object of concern to both the producer and to the consumer.

Agriculture followed a similar, although not parallel, cycle, and the increasing stress upon distribution focused the farmer's attention particularly upon prices and price-making. Several factors contributed to this evolution, among them being commercialized agriculture, price-making on world markets for

¹ This article was read in substance at the session of the Agricultural History Society with the American Historical Association at Minneapolis, December 28, 1931.

basic products, money and credit, and competition between food and population. It is significant for the study of agricultural history that major developments in each of these factors occurred just after the middle of the nineteenth century and particularly during the sixties and seventies. To a great extent it was the dislocations resulting from these extensive if not revolutionary changes which laid the foundation for agrarian discontent in other nations as well as in the United States since the Civil War.

When a self-sufficient agriculture gave way to a commercial agriculture, the farm, instead of producing all its needs, tended to specialize in a limited range of products which were sold for cash and with this money the farmer purchased other goods. In the United States this process was hastened by the railroad, cheap land, horse-power machinery, and refrigeration and other methods for the preservation of food. The railroad network in the East was being completed and the Pacific railroads finished by the late seventies. The railroad land-grant policy together with the Homestead (1862) and Timber (1878) acts afforded cheap or free land in abundance for agricultural expansion. More land was brought into cultivation during the thirty years 1870-1900 than in the previous two hundred and fifty years of American history. The horse-power machinery, both tillage and harvesting, attained approximately its final form during the same period. Refrigeration was introduced early in the eighteen-seventies for railroads and later in the same decade for steamships. In the meantime, the marine engine had revolutionized the ocean freight service, and in 1866 the first Atlantic cable was laid. The American farmer was entering unconsciously upon a world-wide revolution in the distribution and marketing of his products the outcome of which he certainly never anticipated.

Very early in the development of this commercialized agriculture a revolution occurred in the mechanism by which prices for farm products were made. The railroad, the marine engine, and the telegraph and cable, by producing rapid transportation and instantaneous exchange of information established first, after the mid-nineteenth century, a continental price for wheat, and

by the seventies, a world price.² English markets, Liverpool and London, instead of Danzig became the continental wheat market and then the world wheat market and the price of wheat whether in North America, South America, eastern Europe, India or Australia, tended to be determined from the world base-price made at the world market, less transportation and handling costs. Of course, not all products were sold on world markets, but rather similar principles operated in regional or local markets. While these factors opened the channels of trade to immeasurably wider markets, at the same time they deprived the producer more completely of bargaining power. In the long run, the world-price factor meant that agricultural prosperity would be determined to an increasing degree, not by national conditions, but by competition of nations in the world market.

As agriculture became more specialized and the farmer came to depend more largely upon prices, both of the things he sold and of those he bought, money, credit, and banking came to play a more and more vital rôle in his problems of business management. Fluctuations in the value of money and the relations of money to prices and to agricultural prosperity impressed rural people as problems of major importance. Accordingly, in practically every program for the relief of agriculture since the Civil War, money, credit, and banking have played an increasingly significant part.

The situation emphasized also the influence of long-time trends in the competition between food and population. The conclusions drawn from the teachings of Malthus had ushered the world into a state of gloom and foreboding during the early part of the nineteenth century. It seemed that population was certainly overtaking the food supply. The mid-nineteenth century brought a change, however, which originated in part from the conclusions of Liebig regarding the restoration of soil fertility through the addition of chemical fertilizers. This was followed

² Cf. John Harold Clapham, *The Economic Development of France and Germany, 1815-1914* (2d ed. Cambridge, University of Cambridge Press, 1923), 113-116, 158-159, 173, 178, 210, 314-318, 371-375; David A. Wells, *Recent Economic Changes* (New York, 1889), *passim*.

by the biological discoveries of Darwin and others who held out the possibilities of plant and animal improvement and of Pasteur in the control of disease. The practical results were realized on an astonishing scale in old-land countries toward the end of the century and the volume of production was augmented beyond the greatest hopes of the Malthusians through bringing into production the new-land countries of the Americas and Asia and transporting those crops efficiently and cheaply to the centers of Old World population. For the time being, it seemed that food was outrunning the capacity of the population to consume it.³

Toward the close of the nineteenth century the rapid expansion of cultivation in the United States came to a relatively abrupt diminution. The year 1890 has been accepted as marking the end of the open frontier. By coincidence, the passing of readily tillable new land was accompanied by a protracted period of drouth and economic depression which lowered the standards of rural life. On the other hand, industrial prosperity returned rather quickly and entered upon a new stage of expansion with increased efficiency and reduced production costs. Agriculture was not in a position to advance proportionally. It faced a reorganization from the substitution of intensive for extensive cultivation with the resulting increases in production costs, sharply advancing land prices, additional labor requirements at higher wages, and larger capital investments which called for new rural credit facilities. The new conditions placed a premium on the restoration and maintenance of soil fertility. Some farm leaders insisted that this did not mean decline, but it meant that American agriculture was for the first time entering upon a sound and permanent basis of development. They insisted, however, that the ultimate success of the new agriculture was conditioned upon a renaissance of rural life. Out of this situation grew the country life movement of the Roosevelt period. This movement failed to evoke much response from the urban public, however, and

³ Cf. William Trimble, "Historical Aspects of the Surplus Food Production of the United States, 1862-1902," *American Historical Association Annual Report* (1918), 1: 221-240.

aroused some resentment among farmers who objected to rural "slumming." In contrast, the companion policy of conservation and reclamation was enthusiastically developed during the same period, although farm leaders insisted that fertility of the soil and a prosperous rural life were the greatest national resources the nation possessed.

Rather suddenly after the opening of the twentieth century there seemed to be a reversal in the competition between food and population. The surplus of food from the United States declined rapidly or disappeared from the world markets. The other new-land countries were not in a position at the time to keep those markets oversupplied. The world faced a relatively sharp advance in the general price-level and particularly in living costs. Of course, no two economic analyses were in agreement regarding the causes. Some emphasized the rapid increase in world gold production, while others insisted that rural depopulation was reducing the volume of food production necessary to feed the too rapidly increasing urban classes. Still others placed the blame on high tariffs which hampered foreign trade, especially access to cheap food supplies. Possibly all of these factors entered into the situation, but none explained why the increasing prices did not induce a corresponding expansion in agricultural production. This aspect was particularly embarrassing to those who accused the farmer of exacting unreasonable profits and denounced him for threatening the urban world with starvation for his own enrichment. Attempts to organize farmers were condemned vehemently as the creation of farmers' trusts which were worse than oil, steel, or other industrial trusts because they dealt in food. This class of critics advocated the back-to-the-farm movement.

The farmers denied the charges of extortionate profits, and called attention to the unusual advance in the prices of land, machinery, clothing and other supplies, farm labor, and rail rates, to the exactions of industrial trusts and to the manipulation of the markets for farm commodities. While admitting that consumers' prices were excessive, many farmers placed the blame upon the middlemen who caused the unreasonable spread between

the amount the producers received and what the consumers paid. In the first place, the farmers did not make prices. They were made at the central markets, either by world or regional competition, depending upon the particular product. In the second place, the distribution and marketing costs were subtracted from the market price, also beyond the farmers' control, and the producer received what was left which was often not sufficient to justify his investment in capital and labor.

The more fully and widely the problem was discussed, at home and abroad, the more generally investigators came to the conclusion that the heart of the difficulty lay in the costs, inefficiency, and wastes of distribution and marketing. The attention given to this aspect of the high cost of living revealed the absence of any reliable data on these problems. The careful investigator appreciated the complexity of the machinery of distribution of farm commodities and of price-making in the interlocking regional and world markets and hesitated to draw hard and fast conclusions, or to make accusations against any particular group who constituted a link in the distribution chain, except on the basis of more conclusive statistical data than were then available. It was apparent also that no individual investigator had the facilities at his command to procure such data.

To farmers the evils of the distributing and marketing systems were not a new subject of discussion. During the depression period of the eighteen-seventies the Grange as a farmers' organization attacked precipitately the marketing problems of the West and South by means of local coöperatives. In this procedure, however, they were dealing only with that part of distribution which lay between the producer and the central market. The Farmers' Alliance also attacked the question, but from the standpoint of money and assistance from the federal government. Their sub-treasury scheme contemplated a national system of warehousing, federal inspection and grading of commodities, money advances to 80 per cent of the market value of the products stored, and delayed marketing as the demand would absorb commodities at profitable prices. The People's party adopted the proposal and made it a partisan political issue, and with the end of this party the plan as such disappeared.

In 1902, two new farmers' organizations were launched, the American Society of Equity, and the Farmer Coöperative and Educational Union (Farmers' Union). The Grange and the Alliances had stressed, in their organization period, social and educational aims, that is, the sociological approach to the rural problem, and later they developed the economic and still later the political approach. The Equity and the Farmers' Union stressed marketing from the first, and both elaborated comprehensive marketing programs which were quite similar. The Equity plan was based on the assumption that farm prices could not be controlled through money and credit. This was a significant departure from the earlier agricultural price theory which had stressed money so conspicuously. The Equity plan was based on controlled production and the withholding from the market of unwieldy surpluses. This required storage of commodities on the farm and in a system of Equity elevators and warehouses. Credit for the farmer would be obtained through the use of warehouse receipts as security at commercial banks. Each year the Society would fix a minimum price for each product, and each farmer should refuse to sell for less than the base-price, less handling and transportation costs. It was maintained that the producer must be left responsible for production and markets, and if he overproduced he must expect to pay the penalty in a lower price which would be fixed by the Society on the basis of supply and demand.⁴

One branch of the Equity movement insisted that control of the entire crop was not necessary. For example, two states, Illinois and Iowa, producing one-fourth or more of oats, corn, and hogs could control their price. Likewise, Kansas and Minnesota could control wheat; Minnesota, barley; and five states, Maine, New York, Michigan, Wisconsin, and Minnesota, potatoes.⁵ In order to handle such a plan the Society of Equity would maintain a crop reporting and market news service and information would be disseminated by means of a weekly news

⁴ J. A. Everitt, *The Third Power, Farmers to the Front* (3d ed. Indianapolis, 1905) (1st ed., 1903).

⁵ Unsigned pamphlet, *The Crop Rich Money Poor Farmer* (Indianapolis, Farmers Society of Equity [1912]).

letter.⁶ The marketing organization was divided into departments based on commodity groups with a director at the head of each. In 1907 there were five such departments.⁷ Protection of the minimum price against foreign competition was to be provided by organizing similar societies in all the leading agricultural countries. The managing board of the Society of Equity would constitute a national farm board serving as a clearing house for all agricultural information and as a planning board.⁸ Of course they did not contemplate putting the plan into operation immediately, but it served as an ideal toward which to direct their efforts, and it could be perfected in the light of experience.

Other points in the Equity program called for measures to reform taxation, promote economy, and develop service for cultivation of foreign markets, to eliminate retaliation against high tariffs and to oppose reciprocity treaties for the benefit of industry, to develop life and fire insurance, good roads, and irrigation, and to prevent adulteration of food.⁹ In 1910 the marketing committee formulated a coöperative program to become a part of the Equity's larger marketing plan.¹⁰ For the most part, the marketing plan would be operated by the Society and contemplated little legislative action, either state or federal. In Kentucky in 1906 and Minnesota in 1907 they secured laws intended to legalize coöperative or pooling operations.¹¹ The *Coöperative Farmer*, the official organ, reported in February, 1912, that Willet Martin Hays was preparing a federal coöperative law to be introduced at the next session of Congress and appealed to all coöperatives to support it. In 1908, the Equity supported the McCumber Federal Grain Inspection Bill and the Culbertson Cotton Futures Bill.¹² The committee on

⁶ Everitt, *op. cit.*

⁷ *Equity Farm Journal*, January, 1908, p. 9.

⁸ Everitt, *op. cit.*

⁹ *Ibid.*

¹⁰ "Proceedings of the Eighth Annual Convention of the American Society of Equity," *Equity Farm Journal*, February, 1911, p. 14.

¹¹ Edwin Griswold Nourse, *The Legal Status of Agricultural Coöperation* (New York, Macmillan Co., 1928), 158-159. See also the *Equity Farm Journal*, December, 1907, p. 10, and January, 1908, p. 3.

¹² *Equity Farm Journal*, February, 1908, p. 10.

legislation at the annual meeting of 1910 proposed to ask Congress to enact a law limiting the dealing in future sales of all farm products by imposing a requirement that the contracts must specify the location of the product at the time the contract was made. This was an adaptation of the Farmers' Union Cotton Futures Bill of the previous year which applied to the cotton crop alone.¹³

During 1910 conferences were held between representatives of the Society of Equity and the Farmers' Union with view to a merger. When this matter was under discussion at the annual meeting of the former the point was stressed that both organizations were operating on the same program, but one member commented that it would not be principles but persons who would stand in the way of action.¹⁴ To be strictly accurate, the marketing plan of the Farmers' Union was not identical with that of Equity, but it was similar in its broad outline to the Equity plan as the latter was clarified by the marketing committee which in 1910 adopted officially the coöperative form of operation. From the beginning the Farmers' Union based its program upon coöperative buying and selling and built its superstructure on this foundation. Its theory of price was based upon controlled marketing, with Union gins, oil mills and warehousing system, credit on warehouse receipts, a single national selling agency, and a fixed minimum price derived from world-wide information on supply and demand. The early strength of the Union was in the cotton belt, but its plans were adapted to the grain and livestock regions and applied to coöperative elevators, livestock selling agencies, and packing plants. It also conducted coöperative stores and banks. The Farmers' Union acquired a larger membership than Equity and, while it never put its full plan into operation, it may be said that it went much further than Equity in translating its ideal into practice.¹⁵ Benefits to the

¹³ "Proceedings of the Eighth Annual Convention of the American Society of Equity," *op. cit.*

¹⁴ *Ibid.*, January, 1911, p. 2.

¹⁵ Charles Simon Barrett, *The Mission, History and Times of the Farmers' Union* (Nashville, Tenn., Marshall & Bruce Co., 1909); Commodore B. Fisher, *The Farmers' Union* (University of Kentucky Studies in Economics and Sociology, vol. 1, no. 2. Lexington, Ky., 1920).

farmers were claimed in other directions also. During the cotton crises of 1907 and 1909 President C. S. Barrett was influential in securing the coöperation of bankers in financing cotton marketing.¹⁶ In the field of national legislation the Union supported the parcels post, good roads, banking reform, vocational education, and restriction of immigration. It sponsored a bill in 1909 for regulating cotton futures markets and in 1912 for establishing a bureau of markets in the Department of Agriculture. It approved the South Carolina Marketing Law at its annual meeting of 1912 and recommended that all states adopt a similar one.¹⁷

Several other influences also offered assistance, either directly or indirectly, with the agricultural marketing problem. The greenback and the silver movements had represented the most extreme form of the money theory of agricultural price control. The progressive movement within both major political parties advocated vigorously the regulation of railroads, the successful issue of which was of direct advantage to the farmer, although improvements in railroad efficiency undoubtedly contributed largely to the result. Some other questions were of less direct interest to the rural classes, the anti-trust movement, conservation and reclamation, pure food laws, tariff reduction, an income tax, and banking and currency reform. Some of these movements had not brought results by 1911, and the amount of benefit accruing to agriculture from the others was limited and indirect.

It might be expected that the agricultural press would serve as spokesman for the farmers in their marketing difficulties, but examination of the files of the leading papers indicates that they were interested almost exclusively in production. In defense against criticism of a subscriber that it was neglecting marketing, the *Prairie Farmer* boasted that it had printed thirty-five columns

¹⁶ J. Y. Callahan, *The Burning Issue, and What Coöperation Will Do* (Enid, Okla., 1908), 12-13, 20-21, and *Farmers' Union News* (Union City, Ga.), 1911.

¹⁷ "Proceedings of the Eighth Annual Convention of the American Society of Equity," *op. cit.*; *Minutes of the Eighth Annual Meeting of the Farmers' Educational and Coöperative Union*, September 3-5, 1912; Editorial, *Farmers' Union News and Demonstrator*, September 15, 1911.

of matter on marketing questions during the year 1912. Much the same was true of the agricultural colleges. Economic work received relatively little attention. Among the demands of the Farmers' Union at its annual meeting in 1912 were resolutions asking for the establishment of a chair of marketing and courses in marketing in all agricultural colleges. *Wallaces' Farmer*, as late as September 14, 1917, criticized the colleges and agricultural economists on similar grounds but went further in deploring what it considered the failure of agricultural economists to provide agricultural leadership in the time of national crisis.

The United States Department of Agriculture, like most other agricultural institutions, was interested primarily in production,—in making two blades of grass grow where only one had grown before. Most of its staff was technical and scientific. Nevertheless the Department had developed several types of economic activities as an outgrowth of technical investigations or to meet particular outside demands, namely, general statistical work, crop estimates, cost of production studies, marketing methods including some consideration of costs, foreign markets after 1894 in response to demands for disposal of surpluses, preliminary work in standardization and inspection, coöperative marketing, as well as some attention to methods of price control. Special studies had been made in the marketing of particular crops including fruit, poultry and eggs, meat, dairy products, and cotton. The number of highly perishable products on this list is suggestive of the point of departure for much of this work,—to discover methods of placing them on the market in good physical condition. There was no clear separation of technical from economic functions that would place each type of research in the hands of specialists in these respective fields. With few exceptions, the technically trained investigators performed both types of work.¹⁸ The problem of marketing farm products in terms of regional and world prices had been facing American agriculture for more than

¹⁸ J. T. Horner, "The United States Governmental Activities in the Field of Agricultural Economics prior to 1913," *Journal of Farm Economics*, 10: 429-460 (October, 1928).

half a century, but prior to 1911 it had not been met squarely by the government of the United States or its agencies.

By way of recapitulation the major theories of price control presented prior to 1911 may be restated in the following manner. First, the volume of money was the actuating principle according to the Greenbackers and the silver faction and to a large degree in the Farmers' Alliance-Populist movement. Second, the control of supply and the withholding of surpluses from the market was the dominating principle in the Society of Equity and the Farmers' Union. Third, the middleman theory was the major factor in the analysis of the progressive movement for government regulation of business, in the coöperative movement, and in the high-cost-of-living crusade, although in each it was applied in a somewhat different manner. The most significant difference between the latter two was that coöperation, with a few exceptions, dealt only with that part of the marketing process which lay between the producer and the processor or manufacturer, while the high-cost-of-living crusade sought to comprehend the whole procedure of distribution and marketing—following the commodity through to the consumer. In the former only the farmer was interested, while in the latter the urban population was ready to join forces with the farmer.

It was an unusual and momentous coincidence that the Civil War period marked the shift in political control of the federal government from the country to the city, as well as the revolution in the price-making for agricultural products. It was only at times when the major political parties were seriously divided within themselves that the occasional balance of power in the hands of an insurgent element made it possible to wrest such concessions for agriculture as would work unfavorably against urban interests. The farmers had been agitating for many years but had been unable by themselves to secure a hearing on their marketing grievances. The high-cost-of-living movement served as a medium for effecting a temporary combination that could wield sufficient pressure to produce action.

The significance of this union of interests is emphasized by the somewhat unexpected source of the inspiration for the first

bureau of markets bill.¹⁹ In its issue of August 6, 1910, the *Saturday Evening Post* published an article entitled "The Farmer and the Cost of Living," by B. F. Yoakum, chairman of the executive committee of the St. Louis and San Francisco Railroad Company and allied lines. The subtitle announced that the article dealt with these "problems from a railroad man's point of view."

Yoakum declared that the economic balance of the country would be restored by the farmer and not by military power. He stated that the politicians had spent thirty dollars for military purposes during the last Congress for every dollar spent for agriculture, and that the farmer should be aided in the development of business methods in order that he might produce more abundantly and market more profitably to himself and reduce prices to the consumer. As an example of the success of business organizations he cited the Bermuda onion industry in South Texas which had been transformed from a failure into a prosperous crop. He contended that the same was potentially true of every other crop. The great expenses of marketing and distributing farm commodities, according to his analysis, were to be found at either end of the transportation system. The farmer might reduce those at his end by good roads. The consumer might reorganize the urban distributing system to effect economies at the other end. According to Yoakum's statistics 60 per cent of the spread between producers' and consumers' prices for food was chargeable to the middlemen. He suggested a system of urban distribution which he estimated would save \$150,000,000 annually for the city of New York alone. He placed the responsibility for the farm marketing situation upon public men, who did not give proper consideration to agricultural interests, but made political capital out of attacking corporate greed. The last session of Congress devoted two-thirds of its time to a railroad bill, which in his opinion resulted in no material advantage to the country, and only one day to the high cost of living, and fur-

¹⁹ "Hearings . . . on the Estimates of Appropriations for the Fiscal Year ending June 30, 1913," House Committee on Agriculture, 62 Congress, 2 session, 255.

thermore it appropriated \$100,000 for roads, but spent money on battleships at the rate of \$18,000,000 each.

This criticism of public men stimulated at least one Congressman to action. As a result of reading Yoakum's article, and partly as a result of information on distribution costs given out by Secretary of Agriculture, Robert Charles Wickliffe of Louisiana introduced a bill (H. R. 13568) on August 14, 1911, to establish a bureau of markets in the Department of Agriculture.²⁰ The bill was composed of four short sections and the second of them instructed the proposed bureau "to make diligent investigation of the methods of marketing farm products, and especially with regard to finding out and recommending the fairest and most direct method by which farm products may reach the consumer from the producer . . . and the said bureau shall from time to time make . . . public reports. . . ."

The second legislative effort in the direction of creating a bureau of markets is represented by four bills introduced during the winter of 1911-12. On the authority of T. J. Brooks the draft bill which was the basis for these measures was written by himself and A. C. Davis, national secretary of the Farmers' Union.²¹ The draft appears to have been circulated among several members of the House and Senate, and Brooks later enumerated three members who introduced it in Congress. The same bill, except for a few details, was introduced by a fourth member, Beall, in that session, and by two others, Garner and Quin, in an enlarged form in the next Congress.²² Brooks consulted the Secretary of

²⁰ *Congressional Record* (62 Congress, 1 session), 47: 3932.

²¹ Thomas Joseph Brooks was at one time editor of the official organ of the Farmers' Union of Tennessee, *The National Union Farmer* (Greenville) published under the direction of the state executive committee of which he was secretary. He was the author of *Origin, History and Principles of the Farmers' Educational and Coöperative Union of America*. Later he became professor of markets and rural economics at the Agricultural and Mechanical College of Mississippi, and published a textbook, *Markets and Rural Economics* (New York, Shakespeare Press, 1914), in which he related his connection with the bills in question.

²² Jack (James Andrew) Beall served as a Representative from Texas to the Fifty-eighth and to the five succeeding Congresses (March 4, 1903-March 3, 1915) and was not a candidate for renomination in 1914. John Nance Garner of

Commerce and Labor and the Secretary of Agriculture, both of whom were willing to undertake the responsibilities involved. Unfortunately, the date of these conferences is not indicated, and as comes out later, some importance attaches to the question whether they occurred before or after the bills were introduced in Congress.

The second bureau of markets bill (H. R. 16310), and the first of the series of Farmers' Union bills, was introduced on December 19, 1911, by Beall of Texas.²³ It consisted of four sections. The proposal was to establish a bureau of markets in the Department of Agriculture, and the director of the proposed bureau was instructed by section 2 "to make . . . investigation as to the systems of marketing farm products, coöperative or otherwise, in practice in various sections of the United States and in foreign countries . . . This information and data . . . shall be diffused . . . either by the circulation of printed bulletins or by information given personally by special agents of the Bureau . . . [also] to make . . . investigations of demands for farm products in various trade centers and the current movement of such products, with the view to furnishing information as to the best available markets. . . ."

Section 3 further stipulated that the bureau was "to compile and collect such information and statistics as may be available to enable the farmers to increase market facilities or adopt the best plans for obtaining the best possible price for their products, either by selling direct to consumers or otherwise."

Texas introduced his bill by request on August 22, 1913, and seems to have taken no interest in it. Percy Edwards Quin of Mississippi introduced his bill on November 5, 1913. Both bills were based on the model draft, but went much further, providing for detailed reports on production of fruit and vegetables in different sections, consumption demands in the several market centers, record of prices to producers and consumers, and inspection and market news services. The ravages of the boll weevil in Mississippi and Texas had driven large numbers of cotton growers into vegetable and fruit growing. The movement had come too fast to adjust to market conditions or to induce building of canneries. The nearby markets were glutted with perishable products, and no news service existed by which shippers could be guided in the distribution of their supplies to demand centers.

²³ *Congressional Record* (62 Congress, 2 session), 48: 529.

On January 30, 1912, Edwin Yates Webb of North Carolina presented a bill (H. R. 19069) to establish a bureau of markets in the Department of Commerce and Labor.²⁴ Sections 1 and 2 were identical with the Beall Bill except for two variations. Instead of circulating marketing information by means of "bulletins" this bill authorized "daily bulletins or by telegrams," and to the authorization to investigate "current movement of such products" there was appended the clause "giving specific data as to supply, normal demand, and price thereof." Section 3 was of the same general nature as in the Beall Bill, but made significant additions. Information should be collected by "any expeditious method, by telegraph, telephone, mail, or otherwise, compil[ed], and report[ed] to farmers' organizations and societies of consumers by daily bulletins or telegraphic reports": Provided that the costs of dissemination of such information by means other than mail should be met by fees paid by the person or association receiving the reports. Section 5 introduced the question of penalties to be imposed on officers or employees who should use for private gain any information acquired through the bureau.

The next bill was introduced by Oscar Callaway of Texas on the day following²⁵ and contained only one variation, namely, division of section 5 of Webb's bill into two sections numbered 5 and 6. The last bill of the series (S. 5294) was introduced in the Senate by Hoke Smith of Georgia on February 14, 1912.²⁶ It proposed to establish a division of markets in the Bureau of Statistics of the Department of Agriculture. This bill of five sections was a compromise between the Beall and Webb bills; following the Beall Bill in section 2 by omitting "daily" printed bulletins and by using the clause which authorized dissemination of information "personally by special agents," and following the Webb Bill in providing for employment of the telegraph. In section 3 the language was modified by providing for circulation of information "by any expeditious method, as by telegraph," etc.

²⁴ *Ibid.*, 1560.

²⁵ *Ibid.*, 1602.

²⁶ *Ibid.*, 2041.

There were important differences between the Wickliffe and Farmers' Union bills which reflect their origin. The Wickliffe Bill grew directly out of the high-cost-of-living discussion and emphasized study of the entire marketing and distributing machinery. Coöperative marketing was not mentioned. The Farmers' Union bills were clearly more allied with the farmer interest and while they recognized the consumer and included the distribution system as a whole, yet their emphasis was on farm marketing and specified coöperative marketing as one of the forms to be investigated. The Farmers' Union point of view is more specifically manifested, however, in the crop reporting and marketing news service feature which fitted in directly with the controlled marketing program of that organization.

Such a policy as was outlined in any of the measures described was decidedly a new departure in federal activity,—much more of an innovation than many agricultural leaders would admit some ten to fifteen years later when they had become accustomed to thinking in terms of similar procedures. This fact is most forcefully revealed in the hearings before the House Committee on Agriculture of December 19, 1911, on the agricultural appropriations bill for the fiscal year ending June 30, 1913. At that time, the Wickliffe Bill was pending before the committee and the Beall Bill was introduced during the day the hearings were held. Victor H. Olmsted, chief of the Bureau of Statistics, was before the Committee in the interest of the Department of Agriculture. The only discussion of marketing work came in connection with this portion of the hearings and is condensed as follows:

THE CHAIRMAN: "Do you think the price paid by the consumer for agricultural products is due to a decline in the amount of production or due to an increase in the cost of production?"

MR. OLMSTED: "Well, now, that is an economic question that requires considerable study."

THE CHAIRMAN: "Have you made any investigation along this line?"

MR. OLMSTED: "One claim is that the enormous increase in the non-producers as compared with the producers has resulted in a larger number being required to be fed than formerly, and, consequently, that the price has gone up, even though the production has kept pace. That is said to be a contributing cause to the increased cost of living. . . ."

At this point Wickliffe intervened to discuss the spread between the producers' and consumers' prices, citing the statement of the Secretary of Agriculture and Yoakum's article in the *Saturday Evening Post*. He then asked Olmsted,

"Could you advance a suggestion by which that might be remedied?"

MR. OLMSTED: "That would involve a reorganization of the entire economic system, as far as the problem of distribution is concerned. Of course, lower freight rates would do away with a tremendous amount of the difference. . . .

MR. WICKLIFFE: "Do you not think that is a matter which requires the attention of this committee?"

MR. OLMSTED: "I think the committee might well take up that question. That is a vital economic question.

THE CHAIRMAN: "That involves, if you please, the whole question of distribution.

MR. OLMSTED: "Yes, sir."

Wickliffe then explained his views further and stated that he had introduced a bill to establish a bureau of markets in the Department of Agriculture. He hoped that the Committee would hold hearings on it. These remarks gave the discussion a new turn.

MR. OLMSTED: "Of course, the Department of Agriculture primarily is not concerned in commercial matters. It is concerned in the furtherance of agriculture and the products of the soil. It does not deal with manufactures or transportation. The Government has bureaus dealing with manufactures and transportation in another department.

MR. HAWLEY: "Would you be authorized under the law in making such an investigation as we have been discussing here?"

MR. OLMSTED: "I do not think there is any direct authority of law. I could send out inquiries if I had the people to handle them and to do the work. It would have to be a very broad inquiry, requiring a great deal of attention and time. It is not primarily a part of the work of our department and bureau, because it relates to commerce. I think the establishment of a bureau, properly equipped, could better handle the particular subject referred to by Mr. Wickliffe.

MR. HAWLEY: "Where would that be established—in the Department of Commerce and Labor?"

MR. OLMSTED: "Wherever you please. Prima facie, it would belong to the Department of Commerce and Labor, because it is a commercial question.

THE CHAIRMAN: "We are doing some things now that do not appear to belong to agriculture.

MR. OLMSTED: "It is a commercial question. It is not, per se, an agricultural question.

MR. WICKLIFFE: "It seems to me this matter is one that pertains peculiarly to farm products, and there is not the vast difference between the price paid to the producer and that paid by the ultimate consumer in other products that exists in farm products.

MR. OLMSTED: "I think probably the Department of Agriculture would not object at all to making that inquiry, if the committee should direct it and provide the means; but I am not authorized to make a positive statement pro or con. The plan you suggest is an excellent one, and if you want to place that work in some existing bureau, if you provide that bureau with the sinews of war, it can be handled. I could make the investigation if I had the means.

MR. WICKLIFFE: "You could? . . . Instead of establishing a new bureau, could we, by providing the necessary appropriation, equip your bureau to make the investigation?

MR. OLMSTED: "Undoubtedly . . . it might be some time before we produced results . . . and we would have to experiment a little before we got at it properly. There have been various investigations made by different departments touching the commercial handling of commodities, the cost of living, wages, retail prices, etc. So far they have been made by the Bureau of Labor, and the Bureau of Labor is now inaugurating an investigation right along this line. I saw a letter from one of the officials of the Bureau—I think perhaps the Secretary of the Department of Commerce and Labor—in which he outlined this investigation and wanted to know if it would infringe upon any of our work. We examined it and found that it would not, that it was a new investigation. I do not recall the exact scope of that investigation, but I know that it was along this general line."

A. Zappone, chief of the accounts division, then called attention to the fact that for two years the appropriation bills had carried an item authorizing the Secretary of Agriculture to investigate the cost of food supplies at the farm and to the consumer and to disseminate the results. The fact then came out that the extent of the activity under this provision was limited to the publication of these prices monthly in the *Crop Reporter*, but Olmsted explained, "the reasons governing the prices we do not investigate, or the transportation question."

Asbury F. Lever of South Carolina then stated a different problem that had been called to his attention by the editor of the Fort Worth *Record* who maintained that the government should provide information on probable *consumption* of cotton as well as on the cotton crop. He asked if estimates of consumption could be prepared for March 1 of each year. Olmsted apparently did not understand the import of the question and referred to the Bureau of Census statistics of cotton supply on hand and remarked, "That is a commercial proposition rather distinct from

agriculture." When pressed further regarding the matter, Olmsted insisted that any estimate of consumption would be "a wild guess" and that "it would not be of very much value."

Persistent questioning eventually elicited an admission from Olmsted that his Bureau could carry on the sort of investigation which Wickliffe was so insistent upon, provided the Committee would make the appropriation of funds. The House Appropriation Bill did not include any provision on the marketing question, but the Senate Committee on Agriculture and Forestry added an amendment, approximately the Smith Bill, carrying an appropriation of \$50,000.²⁷ The amendment was accepted in the Senate on May 13 without material debate. The House refused in two successive conferences to accept the Senate amendment.²⁸ In the second conference, however, a compromise was arrived at which adopted the method evolved from the Wickliffe-Olmsted conversation. The paragraph proposed in this conference report of August 6, 1912 was as follows:

"And that the Secretary of Agriculture be and he is hereby directed to secure from the various branches of the department having authority to investigate such matters, reports relative to systems of marketing farm products, cooperative or otherwise, in practice in various sections of the United States, and of the demand for such products in various trade centers, and shall make such recommendations to Congress relative to further investigations of these questions and the dissemination of such information as he shall deem necessary."²⁹

The language of this paragraph was taken directly from section 2 of the Farmers' Union bills relating to "systems of marketing" and "demand" for farm products. It is thus that these first bills for the establishment of a bureau of markets, although they failed to be enacted as separate measures, nevertheless found their way into legislation in modified form, and under the impetus given by the high-cost-of-living movement which inspired Wickliffe's activity and which, in effect, combined forces with the Farmers'

²⁷ *Senate Report 696*, p. 5, 62 Congress, 2 session, May 2, 1912.

²⁸ *First Conference Report*, May 30, 1912; *Senate Report 732*, 62 Congress, 2 session; *Second Conference Report*, August 6, 1912; *House Report No. 1150*, 62 Congress, 2 session.

²⁹ 37 *U. S. Statutes at Large*, 295.

Union representatives and those of other farm groups who were in Washington urging farm bills. The instruction in the appropriation act in question resulted in the well-known Report No. 98 on "Systems of Marketing Farm Products and Demand for such Products at Trade Centers."³⁰

As already indicated the Webb and Callaway bills provided for the marketing work to be undertaken by the Department of Commerce and Labor. It is in this connection that the exact date of Brooks' conferences with the secretaries of Commerce and Agriculture have a direct bearing. Probably the endorsement of the Secretary of Agriculture had not been given prior to December 19, 1911, when Olmsted was testifying before the Congressional committee, or if it had been given, the Secretary had not communicated the information to the chief of the bureau most concerned. There are two possible explanations for the Webb and Callaway bills. The decision to place the marketing work in the Department of Commerce and Labor may have been the result of Olmsted's testimony or of Brooks' conferences with the Secretary of Commerce. If the latter was involved, the conference would have occurred in late December or in January. Two weeks later, the Smith bills shifting the matter back to the Department of Agriculture may indicate the result of the conference with the Secretary of Agriculture although later events make this possibility appear doubtful. The first authentic endorsement by Secretary James Wilson, thus far discovered, of the bureau or division of marketing is a statement by Senator Hoke Smith in the Senate on August 7, 1912, during the debate on the second conference report when he stated that on inquiry he found that reports of the opposition of the Secretary of Agriculture to a new division of marketing were not true, but that the Secretary did object to the small salary provided.³¹ It seems clear that Smith had no assurance on the marketing item prior to this date. Another endorsement is found in a letter written by Secretary Wilson in August, 1912, and cited by his biographer,

³⁰ U. S. Department of Agriculture, Office of the Secretary, *Report No. 98* (Washington, Govt. Print. Off., 1913).

³¹ *Congressional Record* (62 Congress, 2 session), 48: 10340-10341.

but by this time Congress had completed its deliberations and authorized the marketing investigations.³²

The Smith Bill received the endorsement of the Farmers' National Congress held at New Orleans in November, 1912. The bill was endorsed also by formal resolution at the annual meeting of the Farmers' Union in Chattanooga in September, 1912, and was supported by Farmers' Union officials in the hearings in December, 1912, before the House Committee on Agriculture on the Agricultural Appropriations Bill for the fiscal year ending June 30, 1914. To this appropriation bill was attached a compromise item under which the Office of Markets was established in 1913.

By way of restatement, four important conclusions can be drawn regarding this initial stage in the evolution of an explicit federal agricultural marketing policy. The Department of Agriculture was conservative, even to the point of being reactionary, in its attitude toward the pressing problems of marketing and distribution. It was quite unprepared to assume leadership in this new field. The same was true in general of the agricultural colleges and experiment stations. These public institutions responded in a systematic manner only under persistent pressure. The representative of the Department of Agriculture most largely interested in the economic work already undertaken held that studies of distribution costs, marketing problems, cost of living, estimates of the demands for consumption and such matters were *commercial*, not *agricultural* questions and that they belonged properly to the jurisdiction of the Department of Commerce and Labor and not to the Department of Agriculture. The most advanced thinking of the time was coming from individuals and agricultural organizations outside of official life. The Farmers' Union bills, for example, anticipated, by implication at least, much of what was to be adopted within the next few years. This early agricultural marketing movement was general in its

³² Earley Vernon Wilcox, *Tama Jim* (Boston, Mass., Stratford Co., 1930), 112. Wilcox's account of Wilson's efforts to secure authorization of marketing work during the winter of 1911-12 does not appear to be supported by evidence accessible to the present author.

scope. It contemplated investigation of all phases and all types of marketing systems. Or to state the matter more specifically, it was not directed at emphasizing coöperative marketing or limiting investigations to a single type of system, and neither were government agencies directed to conduct a campaign of propaganda for a coöperative marketing system in the manner required of them some fifteen to twenty years later.

AGRICULTURAL ADAPTATION IN ENGLAND, 1875-1900

PART II

RAYMOND PHINEAS STEARNS

No occupational group is more reluctant to adopt new methods or to produce a new "line" of goods than the farmers. Adverse weather conditions, crop failures, livestock disease—these seldom convince the farmer that any alteration in technique or production is necessary. The recommendations of government investigators or of agricultural colleges are almost equally powerless to effect change. Too frequently the farmer's only school is experience and his most efficient teacher is market price. It is not surprising then, that, after a decade of post-war depression aggravated by crop failures and livestock losses, the English farmer had varied his practices little or none by 1885.

After 1885 English seasons were normal for a time and the farmers expected better times. But it was in vain. After ten years of adversity, English farmers found their markets seized by foreign competitors and, as the Royal Commission appointed to inquire into the causes of depression in trade and industry (1886) stated, there was not so much depression "as extreme lowness of prices."¹ This condition, coincident with the appreciation of gold, continued throughout the decade of the eighties, aggravated by imports of foreign wheat and animal foods which yearly loomed larger in the English market. The English farmers' capital was depleted, the standard of English agriculture slowly deteriorated, and the area turned into rough pasture lands increased steadily. While the wheat acreage increased somewhat, it did not reach its former levels and farmers turned to barley and oats, the prices of which were less depressed than

¹ *First Report of the Royal Commission to Inquire into the Depression of Trade and Industry* (1886), 112.

those of wheat.² The average number of acres of oats in Great Britain increased from 2,706,166 in the period 1869-1875, to 2,943,000 in the years 1887-1893.³ The prices of wool decreased rapidly in the eighties and farmers stored their wool to await remunerative returns or gave up wool raising entirely. In Rutland, one Robert Bradshaw received thirty-eight shillings per tod for wool in 1870 and forty-eight shillings in 1871; but in 1895, he received only twenty-one shillings per tod.⁴ The prices of beef, mutton, and pork, however, stayed on a more even level and the decade of the eighties witnessed a great increase in the number of cattle, sheep, and pigs.⁵ In the sale of these, farmers lost heavily because of their prejudice against the use of scales to weigh livestock in marketing. They preferred to estimate the weight of the animals and, though legislation required every market to keep a weighbridge, the farmers continued to sell by guesswork.⁶ The area in permanent grass increased greatly and was further enhanced by widespread changes in rotation of crops. The regular four-course rotation (the "Norfolk system") was modified by having a "wider shift," that is, "laying (*sic*) longer in grass than usual, but still ploughing it up, letting it lay (*sic*) probably two years longer in grass than usual, but saving labor and the manurial expenditure."⁷ This system was borrowed from Scotch farmers who migrated to Durham and elsewhere in England. Cattle and horse breeding flourished in some areas. In Hereford, the famous cattle of that name were shipped to the United States to improve the breeds which roamed the Platte region.⁸ In general, however, the farmers merely continued their

² See the "Agricultural Statistics," *Parliamentary Papers*, LXXXVIII(52) 1901, p. 112. Also see "Report of the Royal Agricultural Commission," *Parliamentary Papers*, XVI (1) part 1, 1894, p. 40-84, 445.

³ "Report of the Royal Agricultural Commission," *op. cit.*, 448.

⁴ Henry Rider Haggard, *Rural England* (London, 1906), II, 272.

⁵ "Agricultural Statistics," *Parliamentary Papers*, LXXXII (47) 1903, p. 40-41.

⁶ "Report of the Royal Agricultural Commission," *Parliamentary Papers*, XVI (1) part 2, 1894, p. 101-102.

⁷ Evidence of William S. Ferguson, Perth farmer, in *Parliamentary Papers*, XVI (1) part 2, 1894, p. 311.

⁸ *Ibid.*, part 1, 1894, p. 156-158.

former methods with a constant loss of capital and decrease in rents.⁹

Some of the changes begun during the late seventies were extended throughout the eighties. The area planted in potatoes expanded steadily in England: in 1867 it included 289,611 acres; by 1887 it had risen to 369,234 acres.¹⁰ In the more southerly counties the area devoted to orchards and small fruits was extended and new methods were adopted to improve the quality of the fruit grown. Insect repellants were more widely used though many orchard growers were profoundly ignorant of scientific methods.¹¹ For the first time, the small fruit area exceeded the acreage of hops. Simultaneously, market gardening increased from 46,604 acres in 1881 to 81,368 acres in 1891.¹² Poultry raising likewise experienced some increases.¹³ In the northern counties a trend toward dairying began. The number of cattle in Northumberland increased by 15.7 per cent between 1883 and 1893.¹⁴ But many were ignorant of dairy technique and often their ignorance was "of the worst possible form, the lack of knowing their ignorance."¹⁵ Dairying was profitable, however, and they learned in time.

The long continued "depression" led to widespread changes in leasing. Tenants became more unwilling to accept a long term lease; they preferred yearly agreements or merely "sat" on the land; that is, they had no written contract whatever. Likewise, farmers insisted upon preserving the freedom of cropping and sale. As landlords found tenants more difficult to obtain, these

⁹ In Lincoln, rents decreased over 50 per cent between 1882 and 1894. See R. H. Pringle's Report, *Parliamentary Papers*, XVI (1) part 1, 1894, p. 1-24.

¹⁰ William E. Bear, *The British Farmer and His Competitors* (London, 1888), 133-135; *Third Report of the Royal Commission Appointed to Inquire into the Depression of Trade and Industry* (1886), 48-49.

¹¹ Report of W. Fream on Kent, *Parliamentary Papers*, XVI (1) part 1, 1894, p. 27-37.

¹² "Agricultural Returns, 1891," *Parliamentary Papers*, XCI (44) 1890-91, p. xiv-xviii.

¹³ Report of Wilson-Fox on Lancashire, *ibid.*, XVI (1) part 1, 1894, p. 7-32; also J. Turner's Report for Somerset, *ibid.*, 6-11.

¹⁴ Wilson-Fox's Report on Northumberland, *ibid.*, 74.

¹⁵ Bear, *op. cit.*, 104.

privileges were granted to a greater degree. The migration of a number of Scotch farmers to Essex during the eighties was of far-reaching consequence. These men raised grass and turnips in lieu of grain crops, cut down labor costs by means of the "wider shift," kept dairy cattle of a new breed—the Ayrshire—which outdistanced the English Shorthorns in milk production, and not only paid their rents but gave the impression of being in a prosperous state.¹⁶ Their enterprise and its success stimulated their neighbors to imitate the Scotch methods much to the improvement of agrarian conditions in Essex.

Alterations in cropping, in rotations, and in the general agricultural production were not uniformly effected in all England. As a whole, between 1880 and 1890 farming was very complex. Nearly all the elements of change that were practiced before 1900 were introduced before 1890. But these new departures were confined to relatively few of the more daring farmers who tilled a proportionately small area. While grain crops were reduced and permanent pastures were extended enormously, the total amount of land under all crops and grasses was extended annually. The average total acreage under all crops and grasses increased from 46,984,106 in 1871-1875 to 47,932,068 in 1886-1890.¹⁷ In addition, the bare fallow land decreased between 1885 and 1890. These movements demonstrated an extension of the total area under the crops of the older régime rather than any widespread change to the new. Thus a Devon farmer stated in 1886 that he had carried out the ensilage system "in the very best manner, and everything else in the way of fairly high farming." He had grown more produce and kept more stock than ever before, still he declared, "I should have done better if I had let it be in natural grass."¹⁸ The great extension of the grass lands symbolized the universality of his feelings. Yet to put land into grass was merely a negative reaction. It reduced expenses, but

¹⁶ Report of R. H. Pringle on Essex, *Parliamentary Papers*, XVI (1) part 1, 1894, p. 40-84.

¹⁷ "Agricultural Statistics," *Parliamentary Papers*, LXXXII (47) 1903, p. 40-41.

¹⁸ *Third Report*, *op. cit.*, 96.

it did not produce much income for the farmer. Had it not been that the prices of beef and mutton remained relatively less reduced than cereal returns, English farmers would have entered the final decade of the century with practically no capital. As it was, their resources were seriously crippled during their inaction.

They waited in vain. Foreign competition invaded new fields and threatened the English meat markets alongside the cereal markets. Then in the early nineties the British farmer received a further setback. This time a series of dry seasons and the world-wide crisis of '93 forced the English farmer's hand, and he was compelled to change tactics. Economic pressure won out in the end.

In their *Final Report* of 1897, the Royal Commissioners appointed to inquire into the causes of agricultural depression ascribed the condition to three fundamental reasons: the heavy fall in the prices of agricultural products, foreign competition, and high costs of production in England. They estimated that between 1875 and 1894 the prices of farm products had decreased as follows: wheat, 52 per cent; barley, 37 per cent; oats, 34 per cent; cattle, from 25 to 35 per cent; sheep, from 21 to 33 per cent; wool, from 40 per cent up, according to the kind and quality; beef, from 24 to 40 per cent, according to the grade (poorer grades were reduced 40 per cent); mutton, 20 to 30 per cent; and dairy produce, by 33 per cent as a whole. While these reductions in price were going on, home-produced wheat was displaced by American, Russian, Indian, and Argentine wheat; English barley found a serious competitor in Russian barley; British oats were hard pressed by those of Russia and Sweden; beef from local Herefords and Shorthorns was crowded out by that of range cattle from the United States, Canada, Europe, and the Argentine; wool was furnished by Australia; mutton came from Europe and South America; and the supply of dead meats shipped by new, improved, refrigerator vessels had reached tremendous proportions. In addition to these drawbacks, English agriculture was held up by adverse seasons and by dear labor which absorbed 30 per cent of the farmers' costs of production.¹⁹

¹⁹ See the *Final Report of the Royal Agricultural Commission, Parliamentary Papers*, XV (1) 1897, p. 44-89.

A series of droughts began in England in 1892 and persisted until 1895. English farmers, with their working capital long since reduced to the lowest possible ebb, were forced to sell their livestock in large numbers partly to procure needed money and partly because of the shortage of feeds resulting from the drought.²⁰ Between 1891 and 1895 the number of cattle in Great Britain decreased by half a million; sheep were reduced by nearly three million.²¹ Also, the drought reduced the English wheat area to its lowest acreage in the century in 1895.²² The latter, however, was offset in part by a considerable increase in the oat acreage which grew from 1,648,153 acres in 1890 to 1,836,850 acres in 1895.²³

These conditions, coincident with the world crisis of the early nineties, were the greatest blow experienced by English farmers. They had neither capital, credit, nor crops, and prices remained low until the late nineties. They were forced to strike out on some other lines, to perfect new methods, or to go out of business with an almost total loss. Spurred on by such necessity, the farmers turned to those types of agriculture which had supported the more daring of their number so well in the preceding decade.

The droughts proved most serious in the eastern counties which normally have less rainfall than the western areas. Driven by the cumulative pressure which was intensified after 1892, the most conservative counties underwent great changes in rotations, methods, and production. Freedom of cropping and of sale became almost universal, even in Norfolk, the home of the old four-course system.²⁴ Farmers began to maintain that too close adherence to the old system of rotation *exhausted the soil*, while the advantages of the right to sell hay and straw when it was expedient to do so were obvious,—especially to those farm-

²⁰ See the evidence of H. B. Bamford, Warwick farmer, *Parliamentary Papers*, XVI (1) part 2, 1894, p. 27-28.

²¹ *Ibid.*, XV (1) 1897, p. 22.

²² See the *Agricultural Statistics* for the various years; they are compiled in a most useful manner in Pierre Besse, *La Crise et L'Évolution de L'Agriculture en Angleterre de 1875 à Nos Jours; Essai d'Histoire Économique* (Paris, 1910), appendix 4, p. 352-353.

²³ *Ibid.*

²⁴ Report on Norfolk by R. Henry Rew, *Parliamentary Papers*, XVII (4) 1895, p. 9-74; Cf. also Haggard, *op. cit.*, II, 448.

ers of York and elsewhere who were located near mining centers.²⁵

As before, permanent pasture lands were extended and a variation of cropping—the “wider shift”—became almost universal, adding greatly to the absolute area of pasture lands. The old application of the Norfolk rotation was retained only on the best soils.²⁶ With the exception of Northumberland, which extended its wheat area after 1895, wheat was replaced to a considerable degree by barley, oats, roots, and grass. In Essex, between 1890 and 1895, the wheat acreage decreased from 145,256 to 93,156. At the same time, barley rose from 103,772 acres to 104,141 acres, and oats increased from 45,922 acres to 66,873 acres. Likewise, permanent pasture rose from 236,314 acres to 260,731 acres while rotated grasses (clover, lucerne, sainfoin, etc.) grew from 94,807 to 103,148 acres.²⁷

Dairying and cattle fattening increased greatly in York, Cumberland, Lincoln, Norfolk, and elsewhere among the eastern counties. Farmers learned that imported meats competed most heavily only in the second and third qualities of beef. By producing the superior qualities of meat they still could prosper. Concurrently, they awoke to the possibilities of the milk trade with the mining towns and more distant places. New methods of feeding livestock arose, too. The hay shortage of '92 and '93 led many to investigate the merits of straw feeding and to adopt the use of silos.²⁸ The increased production of oats and barley was largely consumed on the farms by livestock and more artificial feeding was done than before. Farmers learned that by these means their cattle produced more and better milk and their fattening herds were marketable in a shorter period of time.²⁹

²⁵ See the evidence of William Harrison, York farmer, *Parliamentary Papers*, XVI (1) part 1, 1894, p. 36-44.

²⁶ Wilson-Fox's Report on Lincolnshire, *Parliamentary Papers*, XVI (3) 1895, p. 5-58.

²⁷ See the *Agricultural Statistics* for 1890 and 1895 respectively; *Parliamentary Papers*, LXXIX (39) 1890; XCI (44) 1890-91; CVI (46) 1895; and XCII (44) 1896.

²⁸ Especially the use of pea, bean, and oat straw.

²⁹ See especially R. H. Pringle's Report on Durham and York, *Parliamentary Papers*, XVI (3) 1895, p. 5-33; Wilson-Fox's Report on Lincolnshire, *op. cit.*, and his Report on Cumberland, *Parliamentary Papers*, XVII (4) 1895, p. 3-45.

As certain western farmers had learned previously, butter was less uniform and seldom marketable when made by the individual dairyman; so in many communities butter factories arose whose output, in most cases, was as salable as the Danish and Irish butter of which the English were so fond.³⁰

The tremendous decline in wool prices reduced the number of sheep for wool, but the market for lambs remained steady. The number of ewes for breeding and even of lambs under one year old increased considerably. In Northumberland, for example, the number of sheep between 1895 and 1900 changed as follows: ewes for breeding, in 1895,—376,264; in 1900,—416,426; other sheep 1 year and over, in 1895,—214,689; in 1900,—199,659; other sheep under 1 year, in 1895,—409,085; in 1900,—449,121.³¹

The area devoted to fruit growing was extended, especially around Wisbeck, in Norfolk.³² Market gardening likewise became more popular, particularly in the Isle of Axholme district of Lincoln.³³ Potatoes became a specialty in certain areas of Durham, Lincoln, and York. In York, the breeding of fancy horses for sale to sportsmen became a prosperous enterprise.³⁴ The appearance of the "millionaire farmer" became more and more marked, particularly in York and Norfolk. The poorer lands in many cases were more profitable to their owners when left untilled and the "shooting rights" alone sold. This practice, so deplorable usually, was the most remunerative means to which owners of "marginal farms" could turn;³⁵ it caused the total cultivated area to decrease in many of the eastern counties and in England as a whole.³⁶ It was, however, one method of adaptation. In general, the northeastern counties turned from cereals

³⁰ Wilson-Fox, *op. cit.*, Haggard, *op. cit.*, II, 282-380.

³¹ "Abstract Returns for the United Kingdom," *Parliamentary Papers*, XCII (44) 1896, and CI (55) 1900.

³² Haggard, *op. cit.*, II, 448-535.

³³ *Ibid.*, II, 144-244.

³⁴ *Ibid.*, II, 282-380.

³⁵ R. Henry Rew's Report on Norfolk, *Parliamentary Papers*, XVII (4) 1895, p. 9-74; Haggard, *op. cit.*, II, 448-535, 282-380.

³⁶ See "Agricultural Statistics," *Parliamentary Papers*, LXXXII (47) 1903, p. 40-41.

to the production of meats, dairy products, and, to a lesser degree, garden stuffs and fruit.

The eastern counties underwent about the same transformation as those to the northward except for the fact that their proximity to metropolitan markets enabled them to develop market gardening, dairying, and fruit growing to an unprecedented degree. Modifications of the Norfolk system were common. In fact, the four-course rotation was practically discarded and cropping was managed "according to what farmers consider their prospects of success."³⁷ Restrictions on cropping and sale were essentially abolished.³⁸ Wheat crops gave place to oats, barley, and grass: "A large proportion of the land can no longer be cultivated to a profit, and *whatever be the consequences to the labourer, the manure merchant, the blacksmith, the carpenter, the engineer, or the kingdom at large, it must go to grass*," stated R. Hunter Pringle in his report on Bedford, Huntingdon, and Northampton.³⁹ Their nearness to London rendered the farms in these counties quite desirable for "millionaire" tenants, especially Suffolk and Cambridge. In the latter counties, the land tended to become a mere playground for wealthy men who had no interest in land or in agriculture except in so far as land ownership and rural homes enhanced their social prestige.⁴⁰ In Essex and Suffolk, market gardening, poultry raising, and dairying were carried on extensively in the nineties and, in the main, proved very remunerative.⁴¹ The Wisbeck area of Cambridgeshire extended the growth of small fruits by 16 per cent between 1891 and 1894.⁴² To Hereford, Middlesex, and elsewhere, a considerable number of Scotch, Cornish, and Devon farmers had migrated. These newcomers practised dairying and raised potatoes with prosperous results while the older farmers in the region were ruined or driven into the "back country." The Scotch in particular introduced their Ayrshire cattle or had Dutch cattle which were far superior to

³⁷ R. Hunter Pringle's Report, *Parliamentary Papers*, XVII (4) 1895, p. 1-73.

³⁸ *Ibid.*; Wilson-Fox's Report on Cambridge, *ibid.*, 3-56.

³⁹ *Ibid.*, 43.

⁴⁰ Haggard, *op. cit.*, II, 1-57.

⁴¹ *Ibid.*, I, 308-436, II, 381-447.

⁴² Wilson-Fox's Report on Cambridge, *Parliamentary Papers*, XVII (4) 1895, p. 3-56.

the English beef type for dairying.⁴³ In a number of instances, the capital of farmers was so scanty that they were unable to purchase cattle to graze on their lands and dealers furnished stock which were grazed on the grass lands at a given rate per capita.⁴⁴ The number of sheep decreased heavily, as high as 35.4 per cent in Cambridge since 1874.⁴⁵ Everywhere there was much derelict land which, unless the shooting rights were sold, lay as a dead weight on the owners' hands.⁴⁶

Looking westward to the east midland counties, one finds three types of agriculture practised between 1890 and 1900. In Leicester, Rutland, and Nottingham, the farmers specialized in dairy products and mixed farming, with corn and green crops for livestock consumption and vegetables and fruits for the urban markets. Stilton cheese was widely manufactured, and increasing use was made of cheese factories as a means of gaining a better product together with improved market facilities. More and more, however, the farmers turned to milk production as the most profitable dairy product.⁴⁷ Fruit and vegetable growers introduced new methods of handling their produce in the nineties. Canning and evaporating processes were introduced from the United States. These aided materially in the preservation of crops and saved large sums theretofore lost.⁴⁸ Here, as elsewhere in England, much land was turned to hunting purposes exclusively, especially in Leicester.⁴⁹ In general, the old restrictions on cropping and sale had disappeared except in Nottingham where they were generally evaded.⁵⁰

The second type of agriculture appeared in Northampton and Warwick particularly. The farmers of these counties quickly

⁴³ Wilson-Fox's Report on Suffolk, *ibid.*, XVI (3) 1895, p. 5-82; Haggard, *op. cit.*, I, 509-584.

⁴⁴ Wilson-Fox's Report on Suffolk, *op. cit.*

⁴⁵ Wilson-Fox's Report on Cambridge, *op. cit.*

⁴⁶ Haggard, *op. cit.*, I, 509-584.

⁴⁷ Evidence of William L. Huskinson, Notts farmer, *Parliamentary Papers*, XVI (1) part 1, 1894, p. 26-33. Haggard, *op. cit.*, II, 245-281.

⁴⁸ J. Augustus Voelcker, "Fruit and Vegetable Drying at Leicester," *Journal of the Royal Agricultural Society of England* (3d series), VII, 500-520 (September 30, 1896).

⁴⁹ Haggard, *op. cit.*, II, 245-281.

⁵⁰ Evidence of William L. Huskinson, *op. cit.*

turned the land to pasture and fattened cattle and sheep. When Rider Haggard investigated Northampton farms in 1902, they were about two-thirds pasture.⁵¹ The good graziers fed artificially to a larger degree. They found it led to a better quality of meat and a more rapid turnover.⁵²

A third system of farming was that of the Scotchmen who migrated to Oxfordshire, took large farms, employed little labor, and by hard work and good management raised corn and green crops which were consumed on the farms by dairy or fattening cattle. These men were generally reported to be successful and prosperous.⁵³ In the Vale of Aylesbury, Buckinghamshire, much duck fattening was carried on. This was an old industry of the region, and because of its success, was widely extended during the last decade of the nineteenth century. The breeding and rearing were in separate hands and the markets were good.⁵⁴

In general, the extension of pasture lands, milk selling, potato raising, the breeding of pedigreed stock, the sale of hay and straw, the increased production of fruits with new marketing methods, and such special cases as that of duck fattening in Buckingham—these were the signs of new times in the southeastern and east midland counties. Such was their answer to the depressed market of their former products.⁵⁵

Kent and the other southeastern counties nearby underwent similar changes. The hop industry, so long established in Kent and Sussex, was materially altered. New systems of "poling" hops by the use of wire and "permanent" uprights improved both the quantity and quality of the crops. At the same time, the use of chemical "washes" for the control of blight and the "hop fly" had similar effects.⁵⁶ Fruit and vegetable cultures

⁵¹ Haggard, *op. cit.*, II, 122-143.

⁵² *Ibid.*; also *ibid.*, I, 404-421.

⁵³ *Ibid.*, II, 95-121; also Aubrey Spencer's Report on Bucks and Herts, *Parliamentary Papers*, XVI (3) 1895, p. 12-29.

⁵⁴ *Ibid.*

⁵⁵ Aubrey Spencer's Report on Bucks and Herts, *op. cit.*

⁵⁶ Charles Whitehead, "Hop Cultivation," *Journal of the Royal Agricultural Society of England* (3d series), IV, 217-262 (June 30, 1893); Haggard, *op. cit.*, I, 137-174.

were constantly extended in Kent during the nineties. In Sussex, hops were cultivated in the east, and much dairying and poultry raising was carried on. The dairy farmers sold milk to London usually and formed a combination in order to drive better bargains with the city wholesalers.⁵⁷ The poultry industry was conducted in three specialized parts: the rearing, the fattening of home-reared fowls, and the fattening of fowls imported from Ireland. As a whole, the poultry industry was conducted as an adjunct to other types of farming and as such was quite profitable.⁵⁸ Rider Haggard found Sussex farmers prosperous in 1902 wherever capital, intelligence, and enterprise were combined. But there was a considerable influx of the new type of owner who "having accumulated money in some commercial pursuit, buys a large estate and makes no legitimate use of the land."⁵⁹ In Hampshire, the farmers fattened sheep and raised hay which was sold profitably when not restricted by the old-type leases. Intelligent and industrious farmers did well, on the whole, in the southeastern counties.⁶⁰

Like the Scotch farmers of the northeastern counties, the southwestern men modified the four-course system by the adoption of the "wider shift." Sheep and cattle flourished widely and dairies were common. New departures appeared in both lines: formerly the breeding and the fattening of livestock were in separate hands but now the farmers fattened cattle of their own breeding more and more,—an integration of processes that must have proved more profitable. Likewise, the system of "letting" dairy cattle to dairymen was abandoned to a large degree, another "tightening up" that cut down costs.⁶¹ The artificial feeding of livestock was extended; the ensilage system was used,

⁵⁷ Evidence of W. F. Ingram, *Parliamentary Papers*, XVI (1) part 1, 1894, p. 101-105.

⁵⁸ Report of R. Henry Rew on Poultry in Sussex, *Parliamentary Papers*, XVI (3) 1895, p. 3-18.

⁵⁹ Haggard, *op. cit.*, I, 112.

⁶⁰ *Ibid.*, I, 51-67.

⁶¹ R. Henry Rew's Report on North Devon, *Parliamentary Papers*, XVI (3) 1895, p. 1-15; R. Henry Rew's Report on Dorset, *ibid.*, XVII (4) 1895, p. 3-38; Haggard, *op. cit.*, I, 257-286. This appears to be much less true of Somerset, cf. Haggard, *op. cit.*, I, 225-256.

production of hay increased, and a very marked expansion occurred in the acreage of oats. In 1893, the oat acreage exceeded that of wheat and barley in Devon.⁶² The practice of artificial feeding created a more even milk flow throughout the year,—an important factor in dairying. Fattened livestock, however, were still sold without weighing, a fact that caused the Royal Commissioner for North Devon to record in 1895 that “the English farmer can grow beef and mutton, but when he attempts to market it he is a sorry failure.”⁶³ The orchards of these southwestern counties were poorly kept in many cases, often due to ignorance of the proper care.⁶⁴

The developments in the West Midlands and the northwest counties were remarkable for their variety and their extent. In an area formerly producing only corn, cattle, sheep, and a little fruit, the fruit acreage widened appreciably, and gardening and poultry raising were added. The cattle had become largely of the dairy type, the sheep were raised for mutton with little attention to wool production, and, as usual, the old form of crop rotation was modified to permit the growth of more pasture, hay, oats, and barley.⁶⁵ Although the total number of sheep in all England decreased considerably, the breeding and fattening of “spring lambs” increased. The following data show the changes in the number of sheep in the United Kingdom, 1890–1900, the averages being of the quinquennial periods 1891–1895 and 1896–1900: sheep one year and over fell from 19,636,580 to 18,897,515; sheep under one year (lambs) rose from 12,116,278 to 12,154,184; the total number decreased from 31,752,858 to 31,051,714.⁶⁶ In Hereford the sheep of one year and over decreased during the years 1895–1900, but the total number of sheep increased from 318,593 to 333,270. Ewes for breeding increased nearly ten thousand in the five years, and lambs rose

⁶² R. Henry Rew's Report on North Devon, *op. cit.*

⁶³ *Ibid.*, 33.

⁶⁴ Haggard, *op. cit.*, I, 175–217.

⁶⁵ R. Henry Rew's Report on Wilts, *Parliamentary Papers*, XVI (3) 1895, p. 4–39; Cf. also Haggard, *op. cit.*, I, 389–413.

⁶⁶ See “Agricultural Statistics,” *Parliamentary Papers*, LXXXII (47) 1903, p. 40–41.

from 136,000 to 140,500.⁶⁷ Truly the type of sheep raised had changed. Mutton, not wool, came to be the shepherds' object.

As dairying and fruit growing extended, new methods were introduced. Farmers began to learn that Hereford cattle were "poor at the pail" and turned to other breeds for dairy purposes. In Hereford and Worcester, the breeding of Hereford cattle for shipment abroad still prospered.⁶⁸ Dairy men found it profitable to keep up the winter's supply of milk by artificial feeding,—an important step in the regularization of the dairy industry which denotes a higher form of the enterprise.⁶⁹ Orchards, small fruits, poultry, and market gardening were given increasing attention. These were especially developed in Worcester where the County Council, almost alone in all England, took advantage of the Small Holdings Act of 1892 to create a number of small farms.⁷⁰ Gardeners and fruit growers made a constantly wider use of evaporation methods for the preservation and marketing of their products and, in some instances, they created co-operative drying plants.⁷¹ Small fruit cultivation—strawberries and gooseberries—expanded rapidly in nearly every county.⁷² In fact, the southwestern and west midland counties formed England's most important fruit areas. Long noted as the cider and berry region *par excellence*, these counties diversified their fruit production now, and, in common with Rider Haggard, one can conclude that they were "not altogether unprosperous."⁷³

In contrast, then, with the era between 1880 and 1890, the last decade of the nineteenth century witnessed considerable adaptation on the part of English farmers. In general, the changes made were merely an extension of those methods which the more enterprising farmers had found successful in the eighties, al-

⁶⁷ *Ibid.*

⁶⁸ Haggard, *op. cit.*, I, 287-322.

⁶⁹ Evidence of G. Murray, Derby land agent, *Parliamentary Papers*, XVI (1) part 1, 1894, p. 143-151.

⁷⁰ Haggard, *op. cit.*, I, 323-388.

⁷¹ *Ibid.*

⁷² Evidence of John Powell, Worcester farmer, *Parliamentary Papers*, XVII (3) 1896, p. 425-427.

⁷³ Haggard, *op. cit.*, I, 403.

though some new departures can be cited. The most glaring change that occurred in the entire period between 1875 and 1900 was the tremendous increase in permanent pasture lands. In the first instance, this was often a mere negative reaction: it reduced expense but little more. When these pastures came to be used, however, in conjunction with artificial feeding of other crops produced upon the farms, and when they were sufficiently stocked, they became an asset to the individual and to the state. Thus, a tendency toward the diminution of permanent pasture lands is noticeable between 1895 and 1900 when farmers began to use artificial feeding in conjunction with grazing.⁷⁴ Closely related to these movements were changes in rotation methods. Farmers came to make use of the "wider spread" and, with the almost universal freedom of cropping and of sale that arose in lease-making, they discarded the Norfolk system and adjusted their production more nearly to the demands of the market. Instead of wheat, wool, and meats, they turned to the sale of straw, dairy products, fruits, vegetables, and the finer qualities of mutton and beef. The artificial feeding of livestock is especially shown by the rapid expansion in the acreage of oats, the change from turnips and swedes to mangold and rape and, more particularly, the growing popularity of alfalfa.⁷⁵ These alterations in "Turnip Townshend's" Norfolk system were fundamental in the process of adaptation carried on in agrarian England.⁷⁶

A corollary to these changes was the growth of the number of cattle in England, especially the increase in the dairy types.⁷⁷

⁷⁴ See Besse, *op. cit.*, appendix 4, p. 352-353. This tendency was even more noticeable after 1900. It was accentuated by another factor, namely, the rise in cereal prices which led many farmers to turn again to cereal cultivation. Wheat raising, however, never has reached its former proportion except during the World War.

⁷⁵ See "Agricultural Statistics, 1903," *Parliamentary Papers*, LXXXII (47) 1903, p. vii-viii; Joseph Darby, "Utilisation of Straw as Food for Stock," *Journal of the Royal Agricultural Society of England* (3d series), III, 684-698 (December 31, 1892).

⁷⁶ A description of the Norfolk system is in Rowland Edmund Prothero, *The Pioneers and Progress of English Farming* (London, 1888), 46; and in his later book as Lord Ernle, *English Farming, Past and Present* (London, 1922), 176.

⁷⁷ "Agricultural Statistics," *Parliamentary Papers*, LXXXII (47) 1903, p. 40-41.

In this connection it is important to note the improvement in the milking qualities of the native Shorthorns and the introduction of Dutch, Scotch, Jersey, and Guernsey cattle for dairy purposes. A similar trend took place in the breeding of pure-bred sheep and pigs.⁷⁸

American cheese displaced the lower grades of English-made cheese and forced the British dairymen to produce a higher and more uniform quality. The same pressure was exerted on butter makers by Danish and Irish butter. English farmers reacted to this in two ways: by turning to the fresh milk trade which developed with amazing rapidity in the last twenty years of the century; and by reorganizing the butter and cheese business. The latter led to the rise of creameries and factories, both co-operative and private in nature. These establishments overcame the difficulties of irregularity in quality and supply, of furnishing city wholesalers with large quantities, and of packing in uniform units of a standard form.⁷⁹

In the fattening of cattle and sheep the English farmers were forced by foreign competitors to produce a better quality of meat in order to hold any market at all. New methods of feeding, better means of combating and increased understanding of diseases in livestock, and more careful breeding enabled them to sustain themselves so well that with better prices at the turn of the century, the trend towards dairying was checked before serious overproduction occurred and the fattening of cattle experienced a comeback to a certain degree.⁸⁰

New methods, new knowledge, and better products led to a tremendous extension of market gardens, orchards, small fruits, poultry, and potatoes. The area of small fruits increased from

⁷⁸ Besse, *op. cit.*, 140, 192-200.

⁷⁹ See the *Final Report of the Royal Commission on the Agricultural Depression*, *Parliamentary Papers*, XV (1) 1897, p. 124-126. The *creameries* bought cream and milk of farmers and manufactured it into butter, cheese, etc.; the *factories* received butter and cheese made by dairymen and graded it, marketed it, etc., with the advantages of a larger scale establishment.

⁸⁰ *Agricultural Statistics*, 1901, p. xxii-xxiii; Cf. also Alfred J. Smith, "Technical Training of Stockmen," *Journal of the Royal Agricultural Society of England* (3d series), III, 372-376 (June 30, 1892); P. G. Craigie, "Twenty Years' Changes in our Foreign Meat Supplies," *ibid.* (2d series), XXIII, 465-500 (1887).

an average of 42,060 acres (1888-1890) to 74,544 acres (1896-1900).⁸¹ The orchard acreage increased from 143,295 acres in 1873 to 226,164 acres in 1900.⁸² The fruit area of England, furthermore, underwent a gradual extension eastward between 1880 and 1900. Eastern shires,—Essex, Lincoln, Warwick, and others,—which listed no orchard areas over 2,000 acres before 1890, did so at the turn of the century. Concurrently, those counties which listed 2,000 to 2,500 acres in 1890 were frequently in the 3,500 class in 1900.⁸³ While the western orchard areas were increased, the eastern farmers found the same specialization profitable.

In the early nineties a complete alteration took place in the methods of preserving and handling fruits and vegetables. Beginning about 1892, "California methods" of selection, assortment, and packing for shipment were introduced. These consisted of skilful grading and careful handling of fresh fruits so as to insure uniformity and freedom from quick perishability. By 1900, these practices were generally adhered to in all the fruit regions of England.⁸⁴

One of the greatest handicaps to fruit and vegetable farming in England was the difficulty of supplying early markets in the spring. The products of the Channel Islands and of France generally arrived before the English stuffs were mature and "stole the march" on the latter. Exploitation of the early markets was achieved to a considerable degree by English market gardeners in the last decade of the century by means of cultivating under glass. This artificial production expanded rapidly in Kent where about 1,100 acres were under glass in 1899. Once established, these greenhouses not only made an entry into the

⁸¹ "Agricultural Statistics," *Parliamentary Papers*, LXXXII (47) 1903, p. 40-41.

⁸² "Evidence of the Departmental Commission on Fruit Culture," *Parliamentary Papers*, XXIV (11) 1906, appendix 2, p. 425.

⁸³ See the tables in *ibid.*

⁸⁴ Charles Whitehead, "New Modes of Disposing of Fruit and Vegetables," *Journal of the Royal Agricultural Society of England* (3d series), III, 589-597 (September 30, 1892); "The Evaporation of Fruit," *Journal of the Board of Agriculture*, II 251-268 (December, 1895).

early fruit and vegetable markets of the spring, but also furnished out-of-season products at fancy prices.⁸⁵

Not until near the end of the century was poultry raising made a separate industry on English farms. Then it arose in south-eastern England especially. Ignorance of methods at first greatly retarded its development. Farmers were likely to judge fowls by their plumage rather than by their more practical points. A reaction against this came with the organization of the Utility Poultry Club which studied methods of grading eggs, judging poultry, and marketing. In 1898, the National Poultry Organization Society was formed to attempt—with ill success—the establishment of co-operative methods in England. The growth of the poultry industry, however, is shown by the valuation placed upon it. In 1878, this was set at about £6,000,000; in 1908, it had risen to £11,700,000.⁸⁶

The increase of wealthy landowners whose money had been gained from non-agricultural pursuits and whose interests in the land arose from social and psychological rather than from economic motives, was one of the most discouraging factors of the decade of the nineties. Accurate statistical information is not available, but it is significant that for the first time in the quarter century (1875-1900) the total area of all land under cultivation in England declined following 1890.⁸⁷ Shooting rights were sold to sportsmen on hundreds of poorer farms in addition, and an increasingly large acreage of derelict land existed. This movement, while doubtless deplorable, appears less undesirable, however, when one recalls the tremendous expansion in cultivated lands that had come in the era immediately preceding the seventies. When the markets contracted, with the establishment of peace in Europe, the less fertile farms of England no longer proved profitable. For nearly a decade their owners tried to cultivate them to a profit but with no success. Finally these "marginal

⁸⁵ William E. Bear, "Flower and Fruit Farming in England," *Journal of the Royal Agricultural Society of England* (3d series), X, 30-86, 267-312 (March 31, June 30, 1899).

⁸⁶ Besse, *op. cit.*, 152-163.

⁸⁷ *Ibid.*, appendix 4, p. 352-353. Compiled from the *Agricultural Statistics*.

farms" were left derelict, their shooting rights let, or turned to grass. Nearly all contemporary observers commented upon the fact that farms with fertile soils, unless badly managed, paid at least a fair return. The real "millionaire" owner or tenant, however, usually purchased old estates with fertile soils; these men doubtless retarded the progress of adaptation by cultivating lands at an actual loss in competition with legitimate agriculturists.

Withal English agriculture was well on the road toward adaptation by 1900. The era from 1890 to the end of the century witnessed far greater efforts to adopt new methods than the preceding decade when farmers lay stunned, as it were, and simply bided their time till conditions, rather than their system, should change.

During the last twenty-five years of the nineteenth century, however, other less tangible but more fundamental developments occurred. Foremost among these was the improved condition of English land which took place in this era. Excepting the unfavorable seasons, there was a general rise in the average production per acre. The average yield per acre of wheat rose from about twenty-five bushels in 1871-75 to nearly thirty-two bushels in 1896-1900. In the same periods oat production increased from about thirty-nine bushels to forty-one bushels, barley from thirty-two to thirty-three, and beans and peas from twenty-four to twenty-seven. In part, these increases are explained by the withdrawal of the poorer soils from cultivation as the century progressed; but in part, too, the growing traffic in sulphates, phosphates, and nitrates for fertilizing purposes explained the enlarged productivity of the soil.⁸⁸

The condition of those classes of society on the soil also changed materially. In general, it appears that small landowners who tilled from 50 to 150 acres (although some farms were larger on the poorer soils), who employed no labor, who managed wisely, and who possessed sufficient capital, weathered the storms of depression well. Smaller owners and tenants who were located on good soil near to or well connected with urban centers were able to prosper in market gardening, dairying, orcharding, the

⁸⁸ Besse, *op. cit.*, 178-182.

growth of small fruits, or poultry raising. Very large farms with sufficient livestock, the judicious use of machinery, and under able management, likewise prospered. But too frequently landlords were forced to sell to the "millionaire" farmers. The loss of capital entailed through lowered rents was more than they could bear. Only the wealthy could afford to own large farms. With sufficient capital resources, however, the large farm could be cultivated with profit.

Tenants suffered inversely in proportion to their managerial ability, their capital resources, and to the degree to which their rents were lowered. Farmers who changed with the times and took advantage of the new freedom in cropping and sale so generally extended were able to survive and, in some cases, even to prosper. In general, their capital was seriously depleted and the majority of those in the eastern grain counties where the system proved less elastic suffered very seriously indeed. Nearly everywhere, though, the tenants' standard of living was raised. Their wives and daughters refused to care for the dairy, better clothes were worn, more varied diets became common, and the landlords furnished better houses, either as an inducement to entice the tenants to stay or in lieu of lowered rents.⁸⁹

The tendency towards a higher standard of living was even more remarkable in the case of farm laborers. This class of farm people had entered the era under survey in most distressing circumstances. Their wages were low, their housing conditions were wretched, and they were ground down by poverty. A large proportion of their wages was payment in kind, especially in the southwestern counties where the lowest wages were paid.⁹⁰ The recent introduction of machinery had led to an oversupply of agricultural laborers.⁹¹ But between 1870 and 1900 a number of circumstances combined to ameliorate the conditions of the

⁸⁹ Rider Haggard especially comments on these facts. Cf. his *Rural England*, and also Francis George Heath, *The English Peasantry* (London, 1874).

⁹⁰ Wilhelm Hasbach, *A History of the English Agricultural Labourer* (Translated by Ruth Kenyon, *Studies in Economics and Political Science*, no. 15, London School of Economics and Political Science, London, 1908), 275-303.

⁹¹ W. C. Smith, "Back to the Land," *Economic Journal*, XVIII, 245-247 (June, 1908).

laborers. The organization of the laborers under Joseph Arch, the work of such men as Canon Girdlestone and Francis George Heath, and the investigation of the Royal Commission in 1867 aroused public opinion and led to a demand for improvement.⁹² The Education Act and subsequent revisions forbade the use of child labor somewhat. At the same time, the rise of prices generally and the prosperity in agriculture prior to 1875 led to a gradual rise in wages which, because they were still insufficient, the laborers were loath to see diminished in the late seventies.⁹³ This feeling arose almost simultaneously with the arousal of public interest in the laborers' condition. Furthermore, the depression in agriculture after 1875 led to unemployment among farm laborers who migrated to the towns or emigrated. The lure of the city and the opportunity for higher wages in industrial pursuits caused many more to leave the farms. Thus, between 1871 and 1901, the number of farm laborers in England and Wales dropped from 1,098,261 to 609,105,⁹⁴ and Rider Haggard found a general lack of laborers throughout the Kingdom in 1901-2.⁹⁵ This condition naturally gave rise to an increase in wages which, in turn, enabled the laborers to improve their standards of living. Wages were raised and lowered according to the relative prosperity of agriculture, but there was a gradual rise from 1850 to 1900 of about 39 per cent in the midland counties, 41 per cent in the eastern counties, and 57 per cent in the southern and southwestern counties.⁹⁶ In addition, payments in kind nearly disappeared and laborers were furnished with garden plots (allotments) to a large degree.⁹⁷ Concurrently, women no

⁹² *Ibid.*; Heath, *op. cit.*, 35 ff.

⁹³ "Report on Standard Piece Rates of Wages and Sliding Scales in the United Kingdom," *Parliamentary Papers*, LXXXII, 1900, p. 174.

⁹⁴ Francis George Heath, *British Rural Life and Labour* (London, 1911), 158-159. Change in classifications makes this statement somewhat exaggerated. Cf. also *Parliamentary Papers*, XVI (1) part 2, 1894, appendix, p. 648.

⁹⁵ See his *Rural England*.

⁹⁶ Wilson-Fox, "Report on the Wages and Earnings of Agricultural Labourers in the United Kingdom," *Parliamentary Papers*, LXXXII (36) 1900, p. 8-54. See also the maps, *ibid.*, 1-3.

⁹⁷ *Ibid.*; Heath, *British Rural Life and Labour*, 35-47; Hasbach, *op. cit.*, 322-328.

longer worked in the fields by 1900 except in a few of the north-eastern counties and in the hop district,⁹⁸ and the standards of dress, food, housing, and amusements had become vastly higher.⁹⁹ Still, for the army of laborers who were thrown out of employment and reduced to actual starvation by the painful process of change, the suffering was more than that experienced by any other agricultural class.

The extent of depopulation in rural districts led to a widespread demand in England for the development of small holdings to be held in fee simple by laborers or others who had saved capital enough to handle them. This was a means, it was thought, of retarding both agricultural depopulation and the growth in the number of "millionaire farmers."¹⁰⁰ The possibilities of small holdings were investigated by a Parliamentary committee in 1889, and a series of legislative acts was passed, modelled after those for Ireland. However, the movement could not be made successful merely by the passage of Small Holdings acts. Economic forces alone could do that. A small holding was profitable only when located on good soil and near a favorable market. Even then, the majority of small holders combined their farming with some other occupation.¹⁰¹ In many cases the English small holders had their capital wiped out by depression and their holdings heavily mortgaged. It is significant that, in spite of all the agitation and legislative aid, the total number of small holdings (5-50 acres) remained almost stationary.¹⁰²

Closely knitted to the small holdings movement was the idea

⁹⁸ Heath, *op. cit.*, 10-11.

⁹⁹ Speaking quantitatively only. See Heath, *op. cit.*, 10-11; Hasbach, *op. cit.*, 322-328.

¹⁰⁰ Heath, *op. cit.*, 167.

¹⁰¹ "Report from the Select Committee on Small Holdings," *Parliamentary Papers*, XII (4) 1889, p. 507; R. Winfrey, "The Progress of the Small Holdings Movement," *Economic Journal*, XVI, 222-229 (June, 1906); Miss L. Jebb, "The English Aspect of the Small Holding Question," *Economic Journal*, XVII, 174-179 (June, 1907).

¹⁰² In 1885, there were 232,955 in England; in 1895, 235,481; in 1907, 232,500. See Besse, *op. cit.*, 244-245; C. R. Fay, "Small Holdings and Agricultural Co-operation in England," *Quarterly Journal of Economics*, XXIV, 499-514 (May, 1910).

that the creation of small farms would enable the English farmers to develop co-operation as it was developed in Ireland, Denmark, or Germany. The advantages of co-operation were forcibly brought to the minds of many farmers by the experience of dairy-men and fruit growers as noted above. Likewise, farmers' supply associations had become quite successful in the economical purchase of cake, manure, machinery, seeds, etc., "in Yorkshire and in Northumberland, and all around."¹⁰³ But in the higher forms of co-operation,—co-operative credit, production, marketing, etc.,—English agricultural co-operation before 1900 "was a mere blank, darkened by a few failures."¹⁰⁴ Nevertheless, the basis was laid for a greater success immediately after 1900 and co-operation was, in a limited sense, one of the methods of adaptation in English agriculture.¹⁰⁵ At least, there arose a sentiment in its favor before 1900.

Perhaps the most important change that came over British farmers between 1875 and 1900 was the creation of new attitudes. In a very real sense the farmers were liberalized. During this period a new generation arrived on the scene. With it came a more scientific attitude towards farming and a real demand for agricultural education. In 1886, no less a person than Sir James Caird opposed the introduction of technical education and stated that "the farmers as a rule, in this country understand their business."¹⁰⁶ But by 1900, the attitude was more favorable and state aid was invoked for agricultural experiment stations and technical instruction.¹⁰⁷ At the same time, the successful departures from the ancient Norfolk rotation destroyed the fanatical adherence to the old farming methods. The experiments of such men as Prouty who raised "white straw" crops in successive years in direct contradiction of the four-course system aroused considerable interest.¹⁰⁸ Less and less land was left in

¹⁰³ Evidence of P. Norfolk, York farmer, *Parliamentary Papers*, XVII (3) 1896, p. 407; See also *ibid.*, XVI (1) part 2, 1894, p. 553, 577.

¹⁰⁴ C. R. Fay, *Co-operation at Home and Abroad* (London, 1908), 106.

¹⁰⁵ *Ibid.*, 106-107; Besse, *op. cit.*, 219-226.

¹⁰⁶ *Second Report of the Royal Commission Appointed to Inquire into the Depression of Trade and Industry* (1886), part I, p. 302.

¹⁰⁷ See *Parliamentary Papers*, LXVI (16) 1894, p. 85 ff. (C.-7459).

¹⁰⁸ Haggard, *op. cit.*, I, 509-584.

bare fallow as the century drew to a close.¹⁰⁹ Governmental aid in the control of contagious diseases of livestock, though grudgingly received in 1880, was welcomed in 1900,—a complete change of attitude.¹¹⁰ State assistance in the control of adulteration in farm fertilizers, in the sale of agricultural seeds, and in other lines was abhorred in 1875 but highly approved in 1900.¹¹¹ Evidently adversity weakened the farmers' sense of self-sufficiency and individualism.¹¹²

By 1900, the paths of adaptation had been pointed out. It remained for the English farmer to enlarge and develop them. In the eastern counties, farmers had turned from wheat raising to oats, barley, and rotated grasses, which were largely consumed by livestock. New rotations replaced the Norfolk system. Freedom of cropping and sale was generally established. Western graziers had come to rely on dairy cattle rather than beef types although English farmers still produced three-fourths of the meat consumed in England. As cattle multiplied, sheep diminished and the object of sheep graziers was the production of mutton rather than wool. Purer breeds of livestock became the goal of farmers and new feeding methods produced better results than had been gained before. Cheese and butter making became less general and were taken out of the hands of the individual farmers. The fresh milk trade overshadowed both. On the more fertile soils near the chief centers of population, market gardening, orcharding, poultry raising, and the growth of small

¹⁰⁹ See "Agricultural Statistics," *Parliamentary Papers*, LXXXII (47) 1903, p. 40-41.

¹¹⁰ T. Duckham and G. T. Brown, "The Progress of Legislation against Contagious Diseases of Livestock," *Journal of the Royal Agricultural Society of England* (3d series), IV, 262-286 (June 30, 1893).

¹¹¹ An entire chapter can be written on one phase which I have omitted: The struggle to establish suitable agricultural holdings acts for more security to tenants both in their leases and the improvements they put on the farms. In general, no satisfactory security had been established by 1900. In the face of less prosperous times, tenants were loath to accept long leases, and yearly tenancies became the rule; at the same time, the majority still preferred to "make their own bargain" and to rely on local custom ("Tenant Right") for compensation for improvements.

¹¹² See W. J. Walden, "Recent Changes in Farm Practices," *Journal of the Royal Agricultural Society of England* (3d series), VII, 22-38 (March 31, 1896).

fruits were greatly expanded. A double transfer of systems occurred in which the fruit raising and stock rearing of the west and southwest invaded the east, while the new systems of "catch crops" and "wider spread" together with an increase in the production of oats and rotated grasses moved to the western counties. Everywhere the amount of permanent pasture was increased partly at the expense of cereal crops and partly by the diminution of fallow lands. Everywhere rural depopulation took place although the standard of living of those who remained was higher in 1900 than in 1875. Everywhere rents were lowered and the value of lands reduced. But of it all, the most discouraging factor was the rapid growth of the illegitimate "millionaire farmer." He was the one negative factor that precluded complete adaptation before 1900,—and does to this day.

NEWS NOTES AND COMMENTS

FIFTEENTH ANNUAL MEETING OF THE AGRICULTURAL HISTORY SOCIETY

Forty-eight were present at the dinner and sixty at the fifteenth annual business meeting and program of the Agricultural History Society, held at the Cosmos Club in Washington, D. C., on April 15, 1932. The society's president, Joseph Schafer, presided.

The nominating committee consisting of Lyman Carrier (chairman), Solon J. Buck, and Kathleen Bruce, having mailed ballots to members of the society, reported the following elected for the year 1932-33: for president, Ulrich B. Phillips, Yale University; for vice-president, L. C. Gray, U. S. Department of Agriculture; for secretary-treasurer, O. C. Stine, U. S. Department of Agriculture; and elected members of the executive committee, Mary G. Lacy, U. S. Department of Agriculture and Russell H. Anderson of the Museum of Science and Industry, Chicago.

The literary program following the business meeting consisted of the presidential address by Joseph Schafer entitled "Some Enduring Factors in Rural Polity," together with the discussion of the thesis therein presented. Using his detailed study of New Glarus, the Swiss community in Green County, Wisconsin, as the basis for his observations on what he holds to be the need for scientifically ascertaining what is or should be the normal size of farms in every agricultural locality in its various stages of development, Dr. Schafer urged that governmental agencies foster the assumption of these norms as a step in the solution of the agricultural problem confronting the United States. Dr. John D. Black of Harvard University and the Federal Farm Board commented at length on Dr. Schafer's findings and observations. The presidential address will be printed in a later number of *AGRICULTURAL HISTORY*.

The secretary-treasurer, O. C. Stine, reported that the society had gained thirty-one new members since the last annual meeting but that the net gain was only one member as thirty had resigned. The total membership as of April 1, 1932 was reported as 325.

The auditing committee, consisting of F. L. Lewton (chairman), Claribel R. Barnett, and Victor S. Clark have audited and approved the report of the secretary-treasurer covering the period April 25, 1931 to April 1, 1932.

SECRETARY-TREASURER'S REPORT

April 25, 1931 to April 1, 1932

Receipts

Balance in checking account on April 25, 1931.....		\$176.72
Dues for 1928, 1929, 1931, and 1932 received April 25, 1931		
1 for 1928.....	\$2.00	
1 for 1929.....	2.00	
63 for 1931.....	189.00	
190 for 1932.....	570.00	
1 for 3 numbers of 1932.....	2.25	
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	\$765.25	765.25
Back numbers of AGRICULTURAL HISTORY.....		118.25
Reprints ordered by authors.....		13.94
		<hr/>
		\$1076.16

Expenditures

Printing and other expenses incident to publishing AGRICULTURAL HISTORY for April, July, and October, 1931 and January, 1932.....	\$857.46
Mimeographing and printing letters, notices of dues, programs, etc.....	20.05
Stamps for mailing letters, notices of dues, programs, proof, numbers of the journal, air-mail letters, and transportation charges.....	61.11
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	\$938.62
Total Receipts.....	\$1076.16
Total Expenditures.....	938.62
	<hr/>
Balance in checking account on April 1, 1932.....	\$137.54

COLUMBIA UNIVERSITY STUDIES IN THE HISTORY OF AMERICAN AGRICULTURE

The Columbia University Press has formulated plans for the publication of a series of volumes to be known as the "Columbia University Studies in the History of American Agriculture." As planned, the series will contain three types of material. The first is reprints of old works such as Jared Eliot's *Essays on Field-Husbandry in New England* (1760), the two-volume work entitled *American Husbandry* which appeared anonymously in 1775, and John Spurrier's *The Practical Farmer* (1793). Such books as these have long been out of print and are difficult to obtain. Even many college and public libraries do not have copies of them. Each of these reprinted works will be prefaced with a brief introduction and supplemented by such editorial comment as may be necessary to clarify the text. The volumes will also be indexed.

A second type of volumes will include materials gathered from such sources as accounts of foreigners who visited America, farm papers and journals, transactions of agricultural societies, account books, local histories, tax lists, scrap books, market reports, fugitive pamphlets, proceedings of state boards and departments of agriculture, records of manufacturers of farm machinery, advertisements, and genealogical, political, literary, ecclesiastical, and legal documents. Most of this information is at present deeply buried in public and private libraries. In so far as possible this material will be arranged topically as well as chronologically and will be accompanied with explanatory introductions.

The third category will be biographical, depicting such outstanding agrarian leaders as John Bordley, Elkanah Watson, Jesse Buel, and John Johnston. Whenever feasible and desirable the biographies will be accompanied by reprints of their writings pertaining to agriculture.

Finally, the series will be climaxed with a history of American agriculture. Instead of merely embodying an account of agriculture as an economic activity this history will be a story of our rural folk and their arts from the seventeenth century.

The editors of the series are Harry J. Carman, professor of history, Columbia University, and Rexford G. Tugwell, professor of economics, also of Columbia. Both Professor Carman and Professor Tugwell have first hand acquaintance with practical farming, and in addition, have done much research in the field of agriculture. The editors will be assisted by an advisory board composed of Evarts B. Greene (chairman), former president of the American Historical Association and professor of history at Columbia; Avery O. Craven, professor of history, University of Chicago; Lewis C. Gray, economist, division of land economics, United States Department of Agriculture; Harold A. Innes, associate professor of political economy, University of Toronto; Ulrich B. Phillips, professor of history, Yale University; Louis B. Schmidt, professor of history, Iowa State College of Agriculture and Mechanic Arts; and Walter P. Webb, associate professor of history, University of Texas.

Two factors are in large measure responsible for the publication of this series. In the first place, those responsible for this gigantic undertaking feel that the history of American agriculture and rural life has been neglected. Only in recent years have teachers of economics and of social and economic history given any appreciable attention to our agrarian development. They have been and still are seriously handicapped by lack of easily accessible source material and by want of a comprehensive text covering the many-sided story of American agriculture.

Secondly, the history of American agriculture is important from the standpoint of national policy. Since the Civil War the American farmer has been periodically in difficulties. To solve the problems confronting American agriculture and formulate a statesmanlike policy for the future it is highly essential that we know as much as possible about the history of American rural life.